

Attorney Docket No. 010327

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REMARKS

Applicants respectfully request reconsideration and allowance in view of the foregoing amendments and following remarks. In the Office Action, mailed April 12, 2006, the Examiner rejected claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35. By this response, claims 2-5, 8, 12-15 and 22-25 have been amended. Following entry of this response, claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35 will be pending in the application.

Claim Rejections – 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,487,249 to Kim, et al. (hereinafter “Kim”) in view of U.S. Patent No. 6,529,634 to Thyagarajan, et al. (hereinafter “Thyagarajan”) and U.S. Patent No. 5,781,241 to Donovan (hereinafter “Donavan”). However, the Examiner provided rejection details for only independent claims 34 and 35, relying on the Previous Office Action, mailed August 4, 2005, for the continued rejection of claims 2-5, 7-10, 12-15, 17-20, 22-25 and 27-31. Applicants respectfully traverse the rejections of claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35.

A §103(a), or obviousness, rejection is proper only when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.” 35 U.S.C. §103(a). The Examiner must make out a *prima facie* case for obviousness. The *en banc* Federal Circuit has held that “structural similarity between claimed and prior art subject matter, proved by combining references or otherwise, where the prior art gives reason or motivation to make the claimed compositions, creates a *prima facie* case of obviousness.” *In re Dillon*, 16 U.S.P.Q. 2d 1897, 1901 (CAFC 1990).

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For at least the reasons stated below, Applicants assert that the combination of Kim, Thyagarajan and Donovan fails to describe or suggest the subject matter as a whole of Applicants' claims and, therefore, that Applicants' rejected claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35 are patentably distinct from the combination of Kim, Thyagarajan and Donovan.

Regarding independent claims 8, 18, 28, 31 and 33-35, the Examiner relies on Kim to teach the dividing limitation, Donovan to teach the filtering/weighting limitation and Thyagarajan to teach the selectively decimating limitation. *See Office Action, pages 2-8, and Previous Office Action, pages 2-13.* However, nowhere does the Examiner provide or suggest a motivation for combining these references. The Examiner only makes the conclusory statement that "it would have been obvious for one of ordinary skill in the art to incorporate" one reference with the other(s). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Thus, the Examiner has filed to make out a *prima facie* case for obviousness.

Regarding the Thyagarajan reference and the selectively decimating limitation, the Examiner contends that "Thyagarajan discloses the selective decimation of each element of each column of the block of the digital images based on predetermined criteria (Thyagarajan: column 5, lines 35-67; column 6, lines 1-50) in order to preserve features of blocks by preventing the blocking effect (Thyagarajan: column 4, lines 20-30)." *See Office Action, page 4, lines 10-13.* Applicants respectfully assert that the Examiner is incorrect in his interpretation of the cited section of Thyagarajan. The first cited section of Thyagarajan, col. 5, l. 35 through col. 6, l. 50, discusses the block size assignment element 108 of Figure 1 of Thyagarajan. Block size assignment is a decomposition step of a block of pixels and is neither analogous nor equivalent

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to the claimed selective decomposition limitation. In fact, as is shown in Applicants' Figure 1, block size assignment is performed at element 108; whereas selective decimation is performed at element 109. Further, as Applicants disclose in the application, "the decision to decimate is done on pixel blocks, after the block size assignment. However, the decision to decimate may alternatively occur in the frequency domain, after the blocks have undergone the DCT/DQT process." *See Application, para. 0050*. Thus, Thyagarajan fails to disclose or suggest the selectively decimating limitation of Applicants' claims.

Assuming *arguendo* that the Examiner's reliance on Thyagarajan is correct, Applicants respectfully assert that Donovan fails to teach or suggest the filtering limitation as required by Applicants' rejected claims.

Donovan generally relates to the conversion of computer video signals to horizontally and vertically scaled television signals. *Column 1, lines 7-10*. For example, before a television could display an incoming computer video image having 480 active video lines, a converter would need to scale such incoming image so as to generate an output image having 400 active video lines. *Column 3, lines 50-54*. Such output image to be displayed by the television obviously has a fewer number of active video lines than the incoming computer video image has. This redistribution of the image across a different number of lines introduces artifacts that were not present in the original image. *Column 3, lines 58-60*. Such artifacts are reduced by modifying the filter used for reducing flicker. *Column 3, lines 61-63*. To do so, filter coefficients are modified on a line by line basis. *Column 3, lines 61-63*. For each television line being generated, the surrounding VGA lines are weighted in relation to their distance from the television line. *Column 3, lines 63-65*. By doing this, the location of objects and transitions in the picture do not move, which reduces distortions and artifacts in the televised image. *Column 3, lines 65-67*.

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Based on the above discussion of Donovan, the Examiner's reliance on Donovan to teach or suggest Applicants' filtering limitation is not correct. More specifically, the present invention as specified in claim 8 filters each element of each column of a block of the image. *See, e.g., Application, para. 0055.* That is, Applicants' claimed filtering is accomplished on a **block by block basis**. In contrast, the filter coefficients of Donovan are being used on a line by line basis.

Accordingly, Donovan fails to teach or suggest the filtering limitation as specified in Applicant's rejected claims is believed to be non-obvious and patentably distinguishable over Kim in view of Thyagarajan and further in view of Donovan.

Dependent claims 2-5, 7 and 9-10 ultimately depend from independent 1. The allowability of dependent claims 2-5, 7 and 9-10 thus follows from the allowability of independent claim 1; as such, dependent claims 2-5, 7 and 9-10 are allowable over the art of record.

Dependent claims 12-15, 17 and 19-20 ultimately depend from independent 18. The allowability of dependent claims 12-15, 17 and 19-20 thus follows from the allowability of independent claim 18; as such, dependent claims 12-15, 17 and 19-20 are allowable over the art of record.

Dependent claims 22-25, 27 and 29-30 ultimately depend from independent 28. The allowability of dependent claims 22-25, 27 and 29-30 thus follows from the allowability of independent claim 28; as such, dependent claims 22-25, 27 and 29-30 are allowable over the art of record.

Therefore, for at least the reasons presented above, Applicants respectfully submit that rejected claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-31 and 33-35 are in condition for allowance, and respectfully request a Notice to that effect.

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CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that this application is in condition of allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.


CHARGE STATEMENT

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: September 12, 2006

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